

3.500 MADISON COUNTY
Anschutz Mining
Corporation

JOHN ASHCROFT
Governor

FREDERICK A. BRUNNER
Director



STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

Poplar Bluff Regional Office
948 Lester Street
Poplar Bluff, MO 63901
314-785-0832

*Madison Mine
MO D09863345
1.5*

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
4-28-86 Division of Management Services
Division of Parks and
Historic Preservation



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APR 30 1986

WASTE MANAGEMENT
PROGRAM

April 28, 1986

Mr. Douglas Boscheinen
Project Manager
Anschutz Mining Corporation
2400 Anaconda Tower
555 Seventeenth Street
Denver, Colorado 80202

Dear Mr. Boscheinen:

Per your request, please find enclosed a copy of the Preliminary Assessment for Anschutz Madison Mine Site.

Should you have any questions, please feel free to contact me.

Sincerely,

Greg Pavely

Greg Pavely
Environmental Engineer

GP/rc

Enclosure

CC: Mr. Randall Miller
Mr. Burt McCullough, Waste Management Program ✓

3.500 MADISON COUNTY
Ansc : Mining
Corporation

JOHN ASHCROFT
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STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MEMORANDUM

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks and
Historic Preservation

RECEIVED

APR 30 1986

WASTE MANAGEMENT
PROGRAM

DATE: April 28, 1986

TO: Mr. Burt McCullough, Waste Management Program

FROM: Mr. Greg ^{DR} ~~Pabely~~ thru Mr. Rick L. Roberts, P.E. thru ^{RFR}
Mr. James ~~A.~~ ^{DR} Burris, P.E., Poplar Bluff Regional Office

SUBJECT: Preliminary Assessment

Please find attached a completed Preliminary Assessment for
Anschutz's Madison Mine Site.

GP/rc

Attachments

A PRELIMINARY ASSESSMENT
OF
POTENTIAL UNCONTROLLED HAZARDOUS WASTE SITE
FOR
ANSCHUTZ'S MADISON MINE
EAST MARVIN AVENUE
FREDERICKTOWN, MISSOURI

RECEIVED

APR 30 1986

WASTE MANAGEMENT
PROGRAM

PREPARED BY:

GREGORY PAVELY
ENVIRONMENTAL ENGINEER
MISSOURI DEPARTMENT OF NATURAL RESOURCES
POPLAR BLUFF REGIONAL OFFICE

I. INVESTIGATOR:

Greg Pavely, an Environmental Engineer with the Waste Management Unit of the Poplar Bluff Regional Office, Missouri Department of Natural Resources, has conducted this preliminary assessment.

II. DATE INVESTIGATION INITIATED: November 10, 1980

DATE INVESTIGATION COMPLETED: April 4, 1986

III. BACKGROUND OF THE INVESTIGATION:

Consideration of Anschutz's Madison Mine area as a potential hazardous waste disposal site by this office first began on November 10, 1980 when a complaint was received that "transformer oils" were being dumped into the old mine shafts. A subsequent investigation on December 18, 1980 by Rick Roberts and Daniel Leyland revealed no evidence of any illegal hazardous waste activity.

The site has been mined intermittently since 1847 for various metals including lead, copper, cobalt, and nickel. Anschutz acquired the property in 1979 from Mr. Silas Dees to explore the feasibility of mining for cobalt and of reprocessing the cobalt rich tailings left there by National Lead Corporation when it ceased production in 1961. During 1979, Anschutz began dewatering the mine and set up a pilot plant to use the cobalt rich tailings for modeling of their planned processing facility. In 1984, Anschutz determined that cobalt production was uneconomical and the project was terminated.

The specter of hazardous waste contamination was raised again by Rick Roberts on November 20, 1985 when aerial photographs of the site taken by him revealed what looked like ponds of black oily liquid standing where the old cobalt tailings had been located.

IV. IDENTITY OF PERSONS INTERVIEWED FOR THIS REPORT:

Mr. Douglas Boscheinen, Project Manager for Anschutz
2400 Anaconda Tower, 555 Seventeenth Street
Denver, Colorado 80202
Telephone: (303) 298-1000

Mr. Ken Lashley, Caretaker for Anschutz
East Marvin Avenue
Fredericktown, Missouri 63645
Telephone: (314) 783-5127

V. DETAILED ACCOUNT OF THE INVESTIGATION:

Rick Roberts on December 5, 1985 completed a site identification form on the site which he had photographed from the air on November 20, 1985. He reported "two or three small ponds containing a black oily substance near the old mine works" and referred to the previous report of "transformer oils" being dumped at the site. He recommended that sampling be done and analysis for PCB's and other chlorinated organics be done.

Sam Brenneke from Laboratory Services and I visited the site on January 14, 1986 to determine what sampling equipment and how many samples would be required. At that time, we talked to Mr. Don Cooper, owner of the adjacent property, which consists of the old National Lead processing and storage facilities. He claimed no specific knowledge of any oils being dumped at the site. We also talked to Mr. Ken Lashley, a neighbor and the caretaker for Anschutz. He gave us permission to walk over the site and claimed no knowledge of any illegal dumping.

Samples were taken on February 25, 1986 by Sam Brenneke and Bill Johnson. They were accompanied by Rick Roberts, Joe Rowe, and myself. The samples are currently being analyzed by Laboratory Services.

Mr. Douglas Boscheinen, Project Manager for Anschutz telephoned this office and explained that the pits in question are located on the old cobalt tailings pile and that the black liquid is an unavoidable result of rainwater leaching out lead and forming sulfuric acid from sulfates in the old tailings.

VI. CONCLUSIONS AND RECOMMENDATIONS:

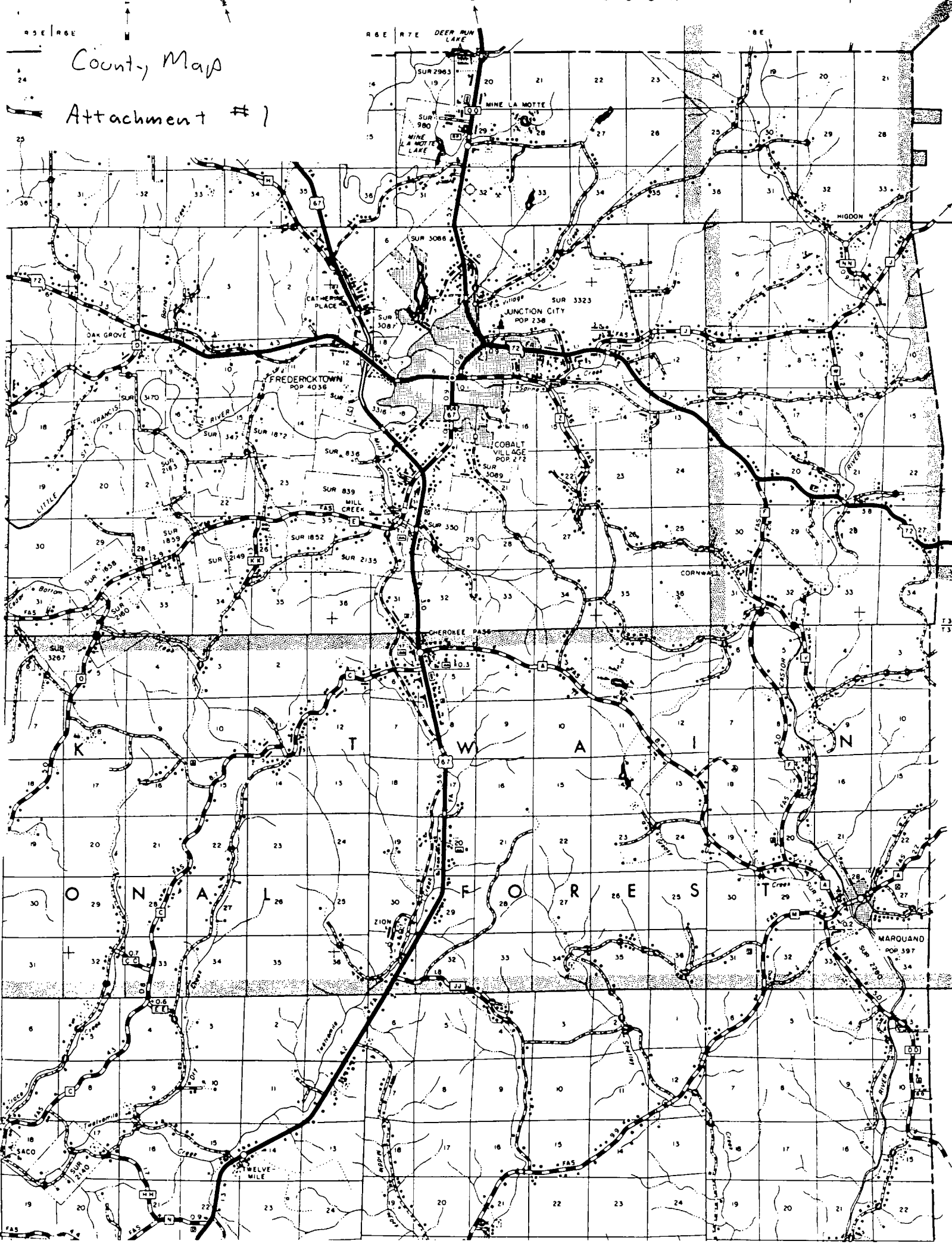
Since the sampling has already been completed, it is recommended that a site investigation be performed once the sample results can be analyzed. Due to the fact that the liquid originates in a mine tailings area, particular attention should be paid to the presence of any PCB's or other chlorinated organics. High levels of TEP lead in the ponds should be expected because of the presence of lead sulfate ores which can be soluble in rainwater. Cobalt may also be present if the solution is acidic enough. It is important to note whether there are high levels of contaminants in the creek which drains the site because it is the creek which presents the greatest potential contact with the public.

VII. ATTACHMENTS:

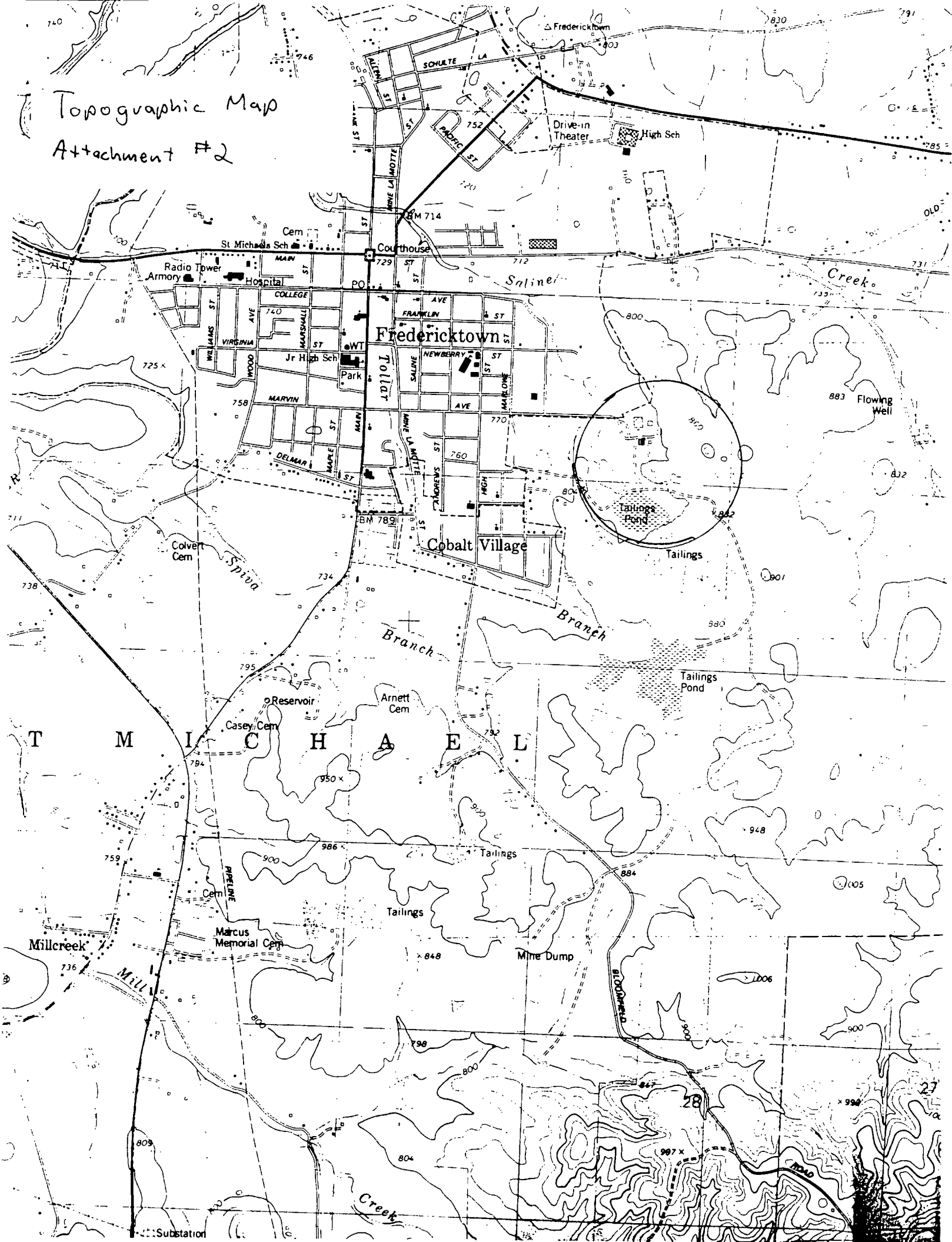
#1	County Map	#4	Photographs
#2	Topographic Map	#5	References
#3	Site Sketch	#6	EPA Forms

County Map

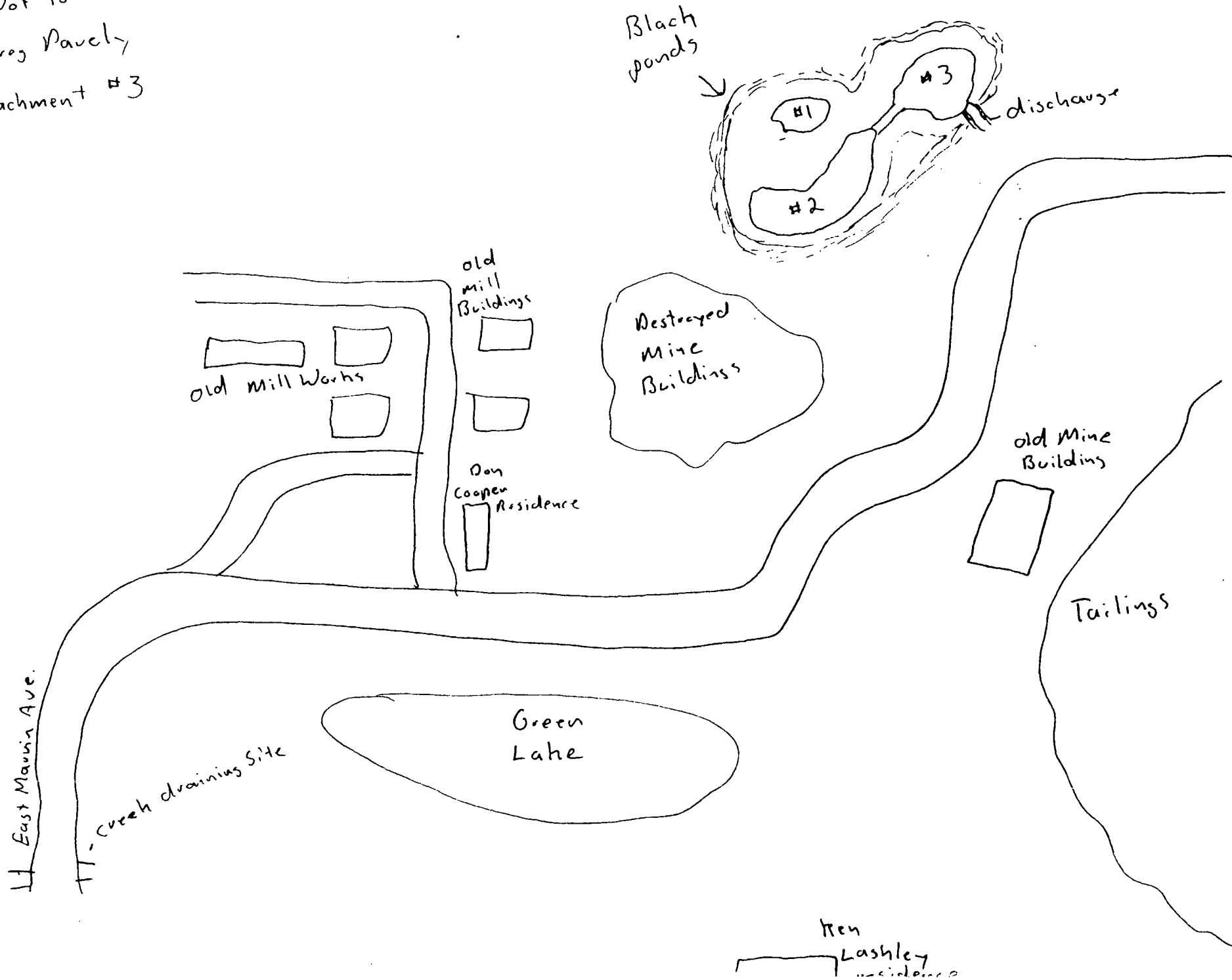
Attachment #1



Topographic Map
Attachment #2



Site Sketch
Not to Scale
Greg Pauley
Attachment #3



Attachment #4
Photographs

Attachment #5 - References

3.500 MADISON COUNTY - Anschutz Corporation (Water Pollution File)
3.500 MADISON COUNTY - Anschutz Corporation (Hazardous Waste File)
3.000 MADISON COUNTY - General File



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

190

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

Anschutz Mining Corp. Madison Mine

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER

401 North Mine La Motte

03 CITY

Fredericktown

04 STATE

05 ZIP CODE

06 COUNTY

MO

63645

Madison

07 COUNTY CODE

08 CONG DIST

09 COORDINATES

LATITUDE

LONGITUDE

37 33 24.9

-90 16 33.7

10 DIRECTIONS TO SITE (Starting from nearest public road)

Bus. 67N to Marvin Ave East. 1/4 mile from Fredericktown

III. RESPONSIBLE PARTIES

01 OWNER (if known)

Anschutz Mining Corporation

02 STREET (Business, mailing, residence)

2400 Anacanda Tower 555 17th St.

03 CITY

Denver

04 STATE

05 ZIP CODE

06 TELEPHONE NUMBER

CO

80202

(303) 298-1000

07 OPERATOR (if known and different from owner)

Same

08 STREET (Business, mailing, residence)

09 CITY

10 STATE

11 ZIP CODE

12 TELEPHONE NUMBER

()

13 TYPE OF OWNERSHIP (Check one)

☐ A. PRIVATE ☐ B. FEDERAL

☐ C. STATE

☐ D. COUNTY

☐ E. MUNICIPAL

☒ F. OTHER: Corporate

☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: / /

☐ B. UNCONTROLLED WASTE SITE (CERCLA 103(d)) DATE RECEIVED: / /

☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES

DATE

2, 15, 86

☐ NO

BY (Check all that apply)

☐ A. EPA

☐ B. EPA CONTRACTOR

☒ C. STATE

☐ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL

☐ F. OTHER:

(Specify)

CONTRACTOR NAME(S):

02 SITE STATUS (Check one)

☐ A. ACTIVE

☒ B. INACTIVE

☐ C. UNKNOWN

03 YEARS OF OPERATION

1845

1984

☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN OR ALLEGED

Acids, Lead, PCBs, Cobalt

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Possible surface water contamination

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH

(Inspection required promptly)

☒ B. MEDIUM

(Inspection required)

☐ C. LOW

(Inspect on time available basis)

☐ D. NONE

(No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT

Greg Pavely

02 OF (Agency/Organization)

MO Dept. Nat. Res.

03 TELEPHONE NUMBER

(314) 785-0832

04 PERSON RESPONSIBLE FOR ASSESSMENT

Greg Pavely

05 AGENCY

MDNR

06 ORGANIZATION

PIBRO

07 TELEPHONE NUMBER

(314) 785-0832

08 DATE

4, 7, 86



I HIGHLY VOLATILE
 J EXPLOSIVE
 K REACTIVE
 L INCOMPATIBLE
 M NOT APPLICABLE

EPA FORM 2070-12 (7-81)



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MO

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

Not Applicable

01 ☒ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 3799

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☒ ALLEGED

Pond Overflow runs into creek which runs through Fredericktown

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: _____

(Acres)

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

NA



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

MO

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

Not Applicable

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include names of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

NA

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(Spills/runoff/standing liquids, leaking drums)

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 3799

04 NARRATIVE DESCRIPTION

Pond has overflow ditch leading to creek

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

NA

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

NA

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☒ ALLEGED

Possible PCB's dumped

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 3799

IV. COMMENTS

V. SOURCES OF INFORMATION (Can specify references, e.g., state files, sample analysis, reports)

State Files

Site Visit

SAFETY OUTLINE

(Use back of page to complete items)

(Attach pertinent documents)

Page ____ of ____

City: _____

Site/Location: _____

Date Prepared: _____ Date Used: _____

Initials

Initials

1. Prepared by: _____

for: _____

2. Purpose of Activity and Procedures: _____

Safety plan is filed with Laboratory Services and
was followed when sampling was done on 2/25/86

3. Material(s): _____

4. Possible Hazards: _____

5. Personnel Monitoring: _____

6. Site Monitoring: _____

7. Protective Level: A B C D

8. Protective Gear: Use Expended Use Expended

steel toed rubber boots ☐ _____ full face respirator ☐ _____gloves, _____ ☐ _____ resp. cart. _____ ☐ _____gloves, _____ ☐ _____suit, _____ ☐ _____tape joints ☐ _____SCBA ☐ _____

9. Decontamination Procedures: _____

10. Precautions, Site Control, Emergency Exit: _____

11. Hospital Location: _____ Ambulance #: _____

Police #: _____, Fire #: _____, Poison Control #: _____